

AMENDMENTS TO THE CLAIMS

1-21 (Canceled).

22 (Previously Presented). A process for producing a nanoelement arrangement, comprising the steps of:

forming a first nanoelement;

covering, with catalyst material in a form of at least one cluster for catalyzing growth of nanoelements, the first nanoelement in at least one predetermined region, wherein the covering step comprises the steps of:

bringing the first nanoelement into operative contact with a suspension having clusters of catalyst material; and

removing the first nanoelement with at least one cluster attached thereto from the suspension; and

growing at least one second nanoelement on the catalyst material.

23 -24 (Canceled).

25 (Previously Presented). The process according to 22, wherein the first nanoelement with the at least one cluster attached thereto is resuspended and is applied to a substrate.

26 (Previously Presented). The process according to 22, wherein the growing step includes growing the at least one second nanoelement on the at least one cluster.

27 (Previously Presented). The process according to 26, wherein the at least one second

nanoelement is formed using a chemical vapor deposition process.

28 (Previously Presented). The process according to 22, wherein the catalyst material between the first and the at least one second nanoelement is nickel-plated.

29 (Previously Presented). The process according to 22, further comprising the step of covering a partial region of the first nanoelement with a protective layer which has no catalytic action for the growth of nanoelements.

30 (Previously Presented). The process according to 29, wherein the protective layer used is a resist, surfactant, organic material, oxidized material, or a metal which has no catalytic action for the growth of nanoelements.

31 (Previously Presented). The process according to 22, wherein the catalyst material comprises at least one of iron, cobalt, nickel, and an alloy of these metals with aluminium, titanium, molybdenum and/or platinum.

32 (Currently Amended). A nanoelement arrangement comprising:

a first nanoelement on which at least one predetermined region is covered in a targeted fashion with catalyst material deposited after the first nanoelement has already been fully produced, the catalyst material is in a form of at least one cluster for catalyzing the growth of nanoelements, wherein the first nanoelement is covered with the catalyst material by bringing the first nanoelement into operative contact with a suspension having clusters of catalyst material, and removing the first nanoelement with at least one cluster attached thereto from the suspension; and

at least one second nanoelement grown on the catalyst material.

33 (Previously Presented). The nanoelement arrangement according to 32, wherein only a portion of the first nanoelement is covered with catalyst material for catalyzing the growth of nanoelements.

34 (Previously Presented). The nanoelement arrangement according to 32, wherein the first nanoelement is grown in a pore introduced in a substrate.

35 (Previously Presented). The nanoelement arrangement according to 34, wherein the first nanoelement is grown in the pore on a metallization plane in the substrate.

36 (Previously Presented). The nanoelement arrangement according to 32, wherein the first and/or the at least one second nanoelement and/or at least one additional nanoelement are grown on top of one another and/or next to one another.

37 (Previously Presented). The nanoelement arrangement according to 32, wherein the first and/or the at least one second nanoelement includes a nanotube, a bundle of nanotubes, or a nanorod.

38 (Previously Presented). The nanoelement arrangement according to 37, wherein the nanorod comprises at least one of silicon, germanium, indium phosphide, gallium nitride, gallium arsenide, zirconium oxide, and a metal.

39 (Previously Presented). The nanoelement arrangement according to 37, wherein the nanotube is a carbon nanotube, a carbon-boron nanotube, a carbon-nitrogen nanotube, a tungsten sulphide nanostructure, or a chalcogenide nanotube.

40 (Previously Presented). The nanoelement arrangement according to 37, wherein the first and/or the at least one second nanoelement is a carbon nanotube, and wherein the catalyst material comprises at least one of iron, cobalt, nickel and, an alloy of these metals with aluminium, titanium, molybdenum, and platinum.

41 (Previously Presented). The nanoelement arrangement according to 32, further comprising an integrated circuit coupled to the first and/or the at least one second nanoelement.

42 (Previously Presented). The nanoelement arrangement according to 32, wherein the nanoelements form a branched network.